The Applicants hereby amend paragraph [0009], beginning on page 2, line 11 of the specification as follows:

[0009] These include systems that employ ultrasound as signal carrier. WO-9955057, which is the applicant's own patent and of which the present invention is a further development, is an example of this. This publication describes the state of the art, and is incorporated herein in its entirety as a reference. This system, like the present invention, is also intended for surveillance and position determination of objects within a restricted area by means of chips that transmit a specific ID code in the form of ultrasound signals. The chips have continuous transmission of signals at predetermined intervals, and comprise ultrasound receivers as well as means for transmitting sound in the audible range in order to issue a warning when an attempt is made to remove a chip~~,~~ The ~~the~~ code is not transmitted after an expected period or the wrong code is transmitted. Stationary receiver units placed in each defined area are connected to a central control unit via a network and perform a two-way communication with the identification chips. In a special embodiment a specific chip can be called up from the central control unit. Calling signals are then transmitted from the stationary receiver units, and the chip with the correct ID replies. The receiver receiving the strongest signal indicates in which defined area the chip is located.

The Applicants hereby amend paragraph [0032], beginning on page 3, line 27 of the specification as follows:

[0032] When a chip 100 transmits while it is in motion, the problem of Doppler shift arises. This means that the received frequency will be higher or lower than the transmitted frequency depending on whether the chip 100 is moving in a direction towards or away from a detector unit 290 (FIG. 2). By using FSK it~~,~~ is possible to calculate the magnitude of the Doppler shift and thereby the direction in which the chip 100 is moving relative to the detector units 290. All the chips 100 transmit on the same frequencies. Before each chip 100 transmits its ID, it listens in order to see whether there are other chips 100 transmitting. If not, it will immediately transmit its information. If there are other chips 100 transmitting, it will wait for a specific period before trying again. If so desired, the chip 100 may also include a sabotage sensor 110, which is activated when an attempt is made to remove it from the object to which it is attached, or to open it.

The Applicants hereby amend paragraph [0039], beginning on page 7, line 15 of the specification as follows:

[0039] An A/D converter 260 for-receiving and sampling several different signals,

The Applicants hereby amend paragraph [0047], beginning on page 7, line 29 of the specification as follows:

[0047] transmission of the data to ~~t~~the central unit 410.

The Applicants hereby amend paragraph [0049], beginning on page 8, line 18 of the specification as follows:

[0049] As already mentioned, in areas with a great deal of noise it may be an advantage for the chips 100 to transmit signals in the form of chirp FSK. The system is designed for this. When the chips transmit chirp FSK signals, the detector base unit 200 employs fractional Fourier transform (step 320, FIG. 3) in the signal processing. In ~~On~~ detecting chirp FSK signals, the detector first performs a de-chirping of the received signals, followed by frequency analysis (FFT, pattern recognition, thresholding, etc.). Each block of data, x[n], n=0, . . . ,N-1, first has to be multiplied by a complex de-chirp, where the centre frequency is already included in the FFT calculation, i.e. a chirp with phase - $\pi\mu t^2$. The de-chirp is set up so that it has the 0 phase in the middle of the block. Constant frequencies will then be scattered outwards in frequency, while the chirp signals that match the de-chirp rate will be collected. This algorithm can also be formulated as a fractional Fourier transform. This method will reduce noise with constant frequencies to a minimum.

The Applicants hereby amend paragraph [0061], beginning on page 10, line 7 of the specification as follows:

[0061] analog to digital conversion of the sampled signals;